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EXAMINER	
CHIO, TAT CHI	

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/623,340	FILO ET AL.	
	Examiner	Art Unit	
	TAT CHI CHIO	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 December 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 12/6/2007 have been fully considered but they are not persuasive.

The applicant argues that the combination of Mizoguchi et al., Tsujii et al., Bhadkamkar et al. and Weaver et al. fail to teach recording as claimed by combining a number of video pixels per sample, formatting the frame start portion and the frame end portion for recording the video information on a first channel and the audio information on a second channel, and reproducing the video and audio information with the video and audio information time-synchronized thereby generating a reduced sample-per-frame number as described and claimed by the applicant.

In response, the examiner respectfully disagrees. Bhadkamker et al. teach that it is necessary to reduce the number of video frames, so that each audio segment of the modified audio data set will correspond to a single video frame in column 9 and lines 27-59. Therefore, Bhadkamker et al. teach combining a number of video pixels per sample, thereby generating a reduced sample-per-frame number. Weaver et al. teach multiplexing the compressed audio and visual information generated by CODEC to generate a compressed video stream. In the compressed video stream, the data representing video frames and audio are merged and formatted according to the particular digital format supported by encoder. Therefore, Weaver et al. teach formatting the frame start portion and the frame end portion. Mizoguchi et al. teach reproducing the

video and audio information with the video and audio information time-synchronized in Figure 1 and Figure 4.

The applicant argues that Weaver et al. fail to teach allocating a portion of available samples, determined from a comparison between the sampled audio throughput and the reduced sample-per-frame number, as a frame start portion and a frame end portion and formatting frame start portion and frame end portion.

In response, the examiner respectfully disagrees. Weaver et al. teach multiplexing the compressed audio and visual information generated by CODEC to generate a compressed video stream. In the compressed video stream, the data representing video frames and audio are merged and formatted according to the particular digital format supported by encoder. For example, the merging process may involve determining the order and placement of portions of digitized audio and video in the stream. the metadata may take the form of header information that identifies the starting point and content of packets within the stream. The stream of compressed audio-visual information constructed by multiplexer is transmitted from the encoder to the video server over a communication channel.

The applicant argues that the combination of Mizoguchi et al., Tsujii et al., Bhadkamkar et al. and Weaver et al. fail to teach formatting the frame start and end portions for recording video and audio information on respective left and right audio channels associated with the compact disc modulation for the video and audio information.

In response, the examiner respectfully disagrees. Weaver et al. teach multiplexing the compressed audio and visual information generated by CODEC to generate a compressed video stream. In the compressed video stream, the data representing video frames and audio are merged and formatted according to the particular digital format supported by encoder. For example, the merging process may involve determining the order and placement of portions of digitized audio and video in the stream. the metadata may take the form of header information that identifies the starting point and content of packets within the stream. The stream of compressed audio-visual information constructed by multiplexer is transmitted from the encoder to the video server over a communication channel. Mizoguchi teaches left and right channels associated with the compact disc modulation for the video and audio information in Figure 1 and Figure 2.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-4, 6-7, 9, 10, 11, 14, 16, 17, 18-21, 24-26, and 28-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizoguchi et al. (US 6,374,040 B2) in view of Tsujii et al. (US 7,027,717 B1), Bhadkamkar et al. (5,893,062) and Weaver et al. (6,112,226).

TTG 3/1/08

Mozoguchi et al. disclose

Consider claims 1, 18, and 29, a portable device for reproducing information stored on a compact disc, the device comprising:

a housing for receiving the compact disc (3 of Fig. 4);

a video interface for acquiring video information from a first channel of the compact disc

an audio interface for acquiring audio information from a second channel of the compact disc, the video and audio information being recorded as a modulated signal,

a light emitting diode data acquisition sub-assembly operable with the video interface and audio interface from the modulated signal information where the first and second channels each correspond to one of left and right audio channels associated with the compact disc for reading information from the compact disc (21 of Fig. 3);

an information processor coupled to the video interface, the audio interface, and the light emitting diode data acquisition sub-assembly reproducing the video and audio information from the modulated signal information from the left and right audio channels (11 of Fig. 3); and

a display unit in communication with the video interface for displaying video information provided from the information processor (31 of Fig. 3);

However, Mizoguchi et al. do not teach the video information having video frame rate, with video frames formatted at frame start and frame end portions, said audio information having a sampled audio throughput for a single frame of video combined as a number of video pixels per sample in a reduced sample-per-frame video; the video and audio information being acquired according to the sampled audio throughput with

the number of video pixels per sample according to the reduced sample-per-frame number, and the information processor receives a time-synchronized modulated signal from the data acquisition sub-assembly providing an audio signal and a video signal derived into a first channel and a second channel from the compact disc, the video signal having one or more frame markers to allow for video reproduction from the modulated signal.

Tsujii et al. teach a recorder for associating video and audio information with respective first and second channels formatted for recordation onto a compact disc (Fig. 1); the information processor that receives a time-synchronized modulated signal from the data acquisition sub-assembly providing an audio signal and a video signal derived into a first channel and a second channel from the compact disc, the video signal having one or more frame markers to allow for video reproduction from the modulated signal (col. 1, lines 21-26 and Fig. 9 shows that video and audio are recorded in two different channels on the compact disc). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to record video and audio in two different channels on the compact disc to facilitate track jump.

Weaver et al. teach video information having video frame rate, with video frames formatted at frame start and frame end portions (col. 5, lines 9-25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to acquire the formatted frames into a specific format to save storage space.

Bhadkamkar et al. teach said audio information having a sampled audio throughput for a single frame of video combined as a number of video pixels per sample

in a reduced sample-per-frame video; the video and audio information being acquired according to the sampled audio throughput with the number of video pixels per sample according to the reduced sample-per-frame number (col. 9, lines 27-59). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to acquire the number of video pixels per sample to reduce the size of the video to save storage space.

Consider claims 2 and 19, Tsujii et al. further teach the device, wherein the modulated signal is processed by the information processor into respective audio and video signals (6 of Fig. 1 processes the modulated data into video and audio signal).

Consider claims 3 and 20, Tsujii et al. further teach the device, wherein the modulated signal comprises interleaved video and audio information (col. 7, lines 63-65 and col. 14, lines 45-50).

Consider claims 4 and 21, Tsujii et al. further teach the device, wherein the compact disc is a compact disc digital audio and the modulated signal comprises audio data stored thereon (it is obvious to play an audio disc in a portable dvd player and Fig. 9 shows that audio data is stored on the compact disc).

Consider claims 6 and 25, Mizoguchi et al. teach the device, wherein the audio interface comprises an amplifier and a filter (27 of Fig. 1 and it is well-known that an amplifier comprises at least a filter).

Consider claims 7 and 26, Mizoguchi et al. teach the device, wherein the audio interface is coupled to a speaker in the housing (32 of Fig. 4).

Consider claims 9, 28, and 33, Tsujii et al. further teach the device, wherein the display unit is a liquid crystal display (col. 9, lines 57-59).

Consider claim 31, Mizoguchi et al. teach the system, wherein the lid pivots about an axis that is perpendicular to an axis of compact disc rotation (13 of Fig. 4)

Consider claim 30, Mizoguchi et al. fail to explicitly teach the system, wherein the lid pivots about an axis that is parallel to an axis of compact disc rotation.

The examiner takes the official notice that the lid pivots about an axis that is parallel to an axis of compact disc rotation is well-known in the art, therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to design the lid that pivots about an axis that is parallel to an axis of compact disc to give the user more choices to choose from when they are buying the device.

Consider claims 10, 24, and 32, Mizoguchi et al. and Tsujii et al. fail to teach the device, wherein the compact disc is approximately 85 mm in diameter. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a compact disc that is approximately 85 mm in diameter since it is known in the art that the compact disc is approximately 85 mm.

Consider claim 11, Mizoguchi et al. and Tsujii et al. teach a method of formatting audio and video information on a compact disc and reproducing the audio and video information using a portable device having an information processor coupled to an audio interface, a video interface, and a light emitting diode data acquisition sub-assembly for reading information from the compact disc, the video information having a video frame rate and the audio information having a sampled audio throughput for a

single frame of video (Fig. 4 of Mizoguchi et al. and Fig. 1 of Tsujii et al.), the method comprising: recording the video information on a first channel and the audio information on a second channel, the video and audio information being recorded as a modulated signal (Fig. 9 of Tsujii et al.); acquiring the video and audio information by the light emitting diode data acquisition sub-assembly (Fig. 1 of Tsujii et al.); processing the video and audio information in the information processor such that video information is provided to the video interface and audio information is provided to the audio interface (Fig. 1 of Mizoguchi et al. and Fig. 1 of Tsujii et al.); and reproducing the video and audio information (Fig. 1 of Mizoguchi et al.); wherein the first and second channels are respective left and right audio channels associated with the compact disc, and the video and audio information are time-synchronized (32 of Fig. 4 of Mizoguchi et al.

Bhadkamkar et al. teach combining a number of video pixels per sample, thereby generating a reduced sample-per-frame number; (col. 9, lines 27-59)

Weaver at al. teach allocating a portion of available samples, determined from a comparison between the sampled audio throughput and the reduced sample-per-frame number, as a frame start portion and a frame end portion and formatting the frame start portion and the frame end portion (col. 5, lines 9-25).

Consider claim 14, Mizoguchi et al. teach the method further comprising a security check to determine if the compact disc is of proper size (Fig. 4 shows that the compact disc loading mechanism has the size of the compact disc. Therefore, if the disc is too big or too small, it will not be fit into the compact disc loading mechanism.)

Consider claim 16, Tsujii et al. teach the method wherein the compact disc is a compact disc digital audio and the modulated signal comprises audio data stored thereon (it is obvious to play an audio disc in a portable dvd player and Fig. 9 shows that audio data is stored on the compact disc).

Consider claim 17, Mizoguchi et al. and Tsujii et al. fail to teach the device, wherein the compact disc is approximately 85 mm in diameter. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a compact disc that is approximately 85 mm in diameter since it is known in the art that the compact disc is approximately 85 mm.

1. Claims 5, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizoguchi et al. (US 6,374,040 B2) in view of Tsujii et al. (US 7,027,717 B1), Bhadkamkar et al. (5,893,062) and Weaver et al. (6,112,226) as applied to claim 1 above, and further in view of Yamakawa et al. (4,896,309).

Consider claims 5 and 22, Mizoguchi et al., Tsujii et al., Bhadkamkar et al., and Weaver et al. teach all the limitations in claim 1 but fail to teach the device, wherein the light emitting diode data acquisition subassembly rotates the compact disc clockwise.

Yamakawa et al. teach the light emitting diode data acquisition subassembly rotates the compact disc clockwise (col. 9, lines 51-60). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to rotate the

compact disc clockwise to obtain the information stored on a compact disc (col. 5, lines 29-43 of Yamakawa et al.).

Consider claim 23, Yamakawa et al. further teach the device, wherein the light emitting diode data acquisition subassembly rotates the compact disc counterclockwise (col. 9, lines 57-60).

2. Claims 8 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizoguchi et al. (US 6,374,040 B2) in view of Tsujii et al. (US 7,027,717 B1), Bhadkamkar et al. (5,893,062) and Weaver et al. (6,112,226) as applied to claim 1 above, and further in view of Xue et al. (US 6,334,026 B1).

Consider claims 8 and 27, Mizoguchi et al., Tsujii et al., Bhadkamkar et al., and Weaver et al. teach the limitations in claim 1 and the device, wherein the display unit is in the housing (31 of Fig. 4 of Mizoguchi et al.) but fail to teach operable to display bit map information.

Xue et al. teach a display operable to display bitmap information (col. 6, lines 42-48). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a display that is operable to display bitmap information since the format of bitmap is simple and well-documented.

3. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizoguchi et al. (US 6,374,040 B2) in view of Tsujii et al. (US 7,027,717 B1),

Bhadkamkar et al. (5,893,062), and Weaver et al. (6,112,226) as applied to claim 11 above, and further in view of Yamakawa et al. (4,896,309).

Consider claim 12, Mizoguchi et al., Tsujii et al., Bhadkamkar et al., and Weave et al. teach all the limitations in claim 11 but fail to teach the method wherein acquiring the video and audio information includes clockwise rotation of the compact disc by the light emitting diode data acquisition sub-assembly.

Yamakawa et al. teach the light emitting diode data acquisition subassembly rotates the compact disc clockwise (col. 9, lines 51-60). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to rotate the compact disc clockwise to obtain the information stored on a compact disc (col. 5, lines 29-43 of Yamakawa et al.).

Consider claim 13, Yamakawa et al. further teach the device, wherein the light emitting diode data acquisition subassembly rotates the compact disc counterclockwise (col. 9, lines 57-60).

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizoguchi et al. (US 6,374,040 B2) in view of Tsujii et al. (US 7,027,717 B1), Bhadkamkar et al. (5,893,062), and Weaver et al. (6,112,226) as applied to claim 11 above, and further in view of Hashimoto (US 2002/0024893 A1).

Consider claim 15, Mizoguchi et al., Tsujii et al., Bhadkamkar et al., and Weave et al. teach all the limitations in claim 11 but fail to teach the method further comprising a security check to determine if the compact disc is properly formatted.

Hashimoto teaches the method further comprising a security check to determine if the compact disc is properly formatted (Fig. 12). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a disk identification process to check whether the disk is of a proper format so that the information stored on the disc is proper reproduced.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAT CHI CHIO whose telephone number is (571)272-9563. The examiner can normally be reached on Monday - Thursday 8:30 AM-6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on (571)-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. C.C./
Examiner, Art Unit 2621